

Work Task C33: Comparative Survival of 500-mm Razorback Sucker Released in Reach 3

FY07 Estimates	FY07 Actual	Cumulative Accomplishment Through FY07	FY08 Approved Estimate	FY09 Proposed Estimate	FY10 Proposed Estimate	FY11 Proposed Estimate
\$0	\$0	\$0	\$0	\$75,000	\$125,000	\$125,000

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Start Date: FY09

Expected Duration: FY13

Long-term Goal: To maintain the effectiveness of the Fish Augmentation Program.

Conservation Measures: RASU3, RASU6.

Location: Mainstem river within Reach 3 and various off-channel fish grow-out ponds.

Purpose: To determine the relative survival of 500-mm TL RASU versus 300-mm TL RASU released into Reach 3.

Connections with Other Work Tasks (past and future): This work is related to current fish rearing work tasks B2 and B5, to fish research work tasks C12 and C13, and to any future work tasks for rearing RASU, as data collected from this study will help evaluate the effect that size of released fish has on survival and ultimately upon conservation of the species.

Project Description: This study will evaluate the relative survival of 500-mm TL RASU versus 300-mm TL RASU released into the Colorado River within Reach 3. Ongoing studies at Lake Mohave (C12) suggest that RASU being raised for brood stock development in that reservoir (Reach 2) should be held in captivity and reared to a total length of 500 mm prior to repatriation to assure survival. It has been suggested that the LCR MSCP should increase its target size for RASU being reared under the Fish Augmentation Program from 300 mm to 500 mm TL.

The primary cause for mortality in Lake Mohave is large striped bass, combined with a lack of cover. RASU in Lake Mead (Reach 1) have shown consistent, albeit low-level, recruitment for the past 20+ years. Research (C13) suggests that cover is the key component allowing such survival and recruitment. Both predator loads and the amount of cover within Reach 3 differ from what is available in Reach 2. Before this management strategy is agreed to and applied to Reach 3, it is prudent to make paired releases of both 300-mm TL RASU and 500-mm TL RASU and compare the relative survival of the two size classes.

This work will be conducted over a 5-year period. During the first 2 years, focus will be on growing and tagging sufficient numbers and sizes of RASU and releasing them into the river system. The LCR MSCP is currently stocking RASU of 300 mm or greater total length into Reach 3. Subsets of these fish are being PIT tagged to provide research subjects for this study. This will continue for FY08 and FY09. (There are no study costs allocated for this work, as this rearing is already accounted for under work tasks B2 and B5.) Under the Fish Augmentation Program, 300-mm TL RASU are credited to the program when stocked into off-channel habitats as well as into the river, proper. Funds from this study will be used to support harvest, tagging, and distribution of large RASU (500 mm or greater TL) from these off-channel habitats.

Previous Activities: None specific to this work task. More than 13,000 RASU (>300 mm TL) have been PIT tagged and released into Reach 3 since October 2006, and all are potential research subjects for this study. The stocking distribution is: 5,125 to Laughlin Lagoon, 3,048 to Needles Dredge Yard pond, 2,243 to Park Moabi, and 2,918 to Bill Williams River and Bay at Bill Williams River NWR.

FY07 Accomplishments: N/A.

FY08 Activities: Under work task G3, funds will be used to support capture and harvest of 500-mm TL RASU from off-channel habitats and release these fish into Reach 3. Subsets of the 6,000 RASU (300 mm TL) scheduled for release within Reach 3 will be PIT tagged and stocked into mainstem river sections as research subjects, and subsets of these fish will be stocked into Beal Lake, Office Cove, and other off-channel habitats for potential grow-out to 500 mm TL.

Proposed FY09 Activities: Proposed work for FY09 includes continued harvest of large RASU (>500 mm TL) from off-channel habitats, continued PIT tagging of RASU >300 mm TL released into Reach 3, and final design of field investigations for FY10-13.

Pertinent Reports: N/A.